

CA

2/

Self-ignition and storage of brown-coal semi-coke.
Jarmola Illek, Polim 31, 225-30(1951).—The semi-coke of brown coal in bulk storage tends to ignite spontaneously, particularly in summer. Heat is generated by processes such as adsorption of gases, oxidation, and absorption of H₂O. Granular semi-coke of grain sizes larger than 10 mm. is safe. Finer particles tend to self-ignite at the base of the pile, with the ashes formed preventing further burning. Large piles can be stored safely when sprayed with a H₂O suspension of lime. James L. Jetl

JILEK, JAROMÍR

SP/AM/6

✓ Newer gasification techniques. Jaromír Jilek. *Polska* 32, 208-13 (1952). — Air is replaced by O₂ in a modern gas works, especially in synthesis-gas production. The Koppers-Totzek generator with fine coal dust, its principle, operation, and cost calcn. are described. The Lacoste system with coarse-grain coal is also described. — [Ac.]

FU

C Z E C H

2231. NEW METHODS OF GASIFYING PULVERIZED FUEL. Jilek, J. (Pulverized Fuel), May 1953, Vol. 33, No. 100; abstr. in Referativnyi Zhurnal Khimii i Khimicheskoy Promstsvosti, Moscow, 15 Apr. 1954, (8), 247. The following plants are described: The Flan-Winkler, in which the steam-oxygen blast is passed alternately from top to bottom to top, with an output of 1000-1700 cu.m/sq.m of sectional area; the I.C.I. three-chamber generator of water gas, producer gas and carbonisation gas; the vibration generator, in which explosions of a mixture of pulverized fuel and air create rapid vibrations (80-100/min) of high amplitude and ensure good mixing of fuel and hot air; the Vrter generator, whose feeder runs at 1750 rev/min and passes 45.4 tons/hr of coal; the Lurgi-Rufegas generator for very fine dust, which uses corrugated walls as solid heat carrier; and the two chamber generator with direct gas heating, producing water gas and lean gas. High output per unit of working space is a common feature of all these.

JELLINE, S.

"Increasing The Heat Of Combustion Of Fuel Gas From Brown Coal.
(To Be Contd.)." p. 157. (Paliva. Vol. 22, No. 1, Oct. 1953, Prague.)

SC: Monthly List of East European Accessions, ^{Vol. 3} Library of Congress, March 1954, Unci.

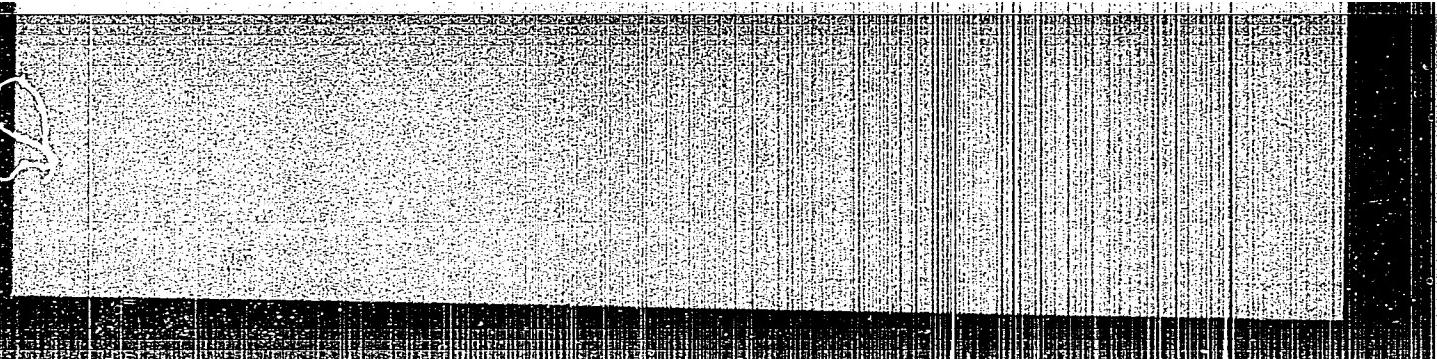
J. L. ET, J.

CZECH

Fluidization technique for gasification of powdered fuels
in a Winkler generator. [REDACTED] Tatra, 34, 183-0
(1954).—Various generators [REDACTED] are described. A
schematic drawing of a Winkler-type generator and
characteristic gasification values are given. Tables are
given showing the fluidization of coal according to the size
in mm, and height of the bed, the amt. of coal dust in the bed
at different speeds of flue gas, the influence of the temp.
in the generator, etc. J. L.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3



APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

JILEK, J.

Economical method for drying crude coal.

p. 323
Vol. 34, no. 12, Dec. 1954
PALIA
Praha

SOURCE: East European Accessions List (EEAL), LC, VOL. 5, no. 3, March 1956

J; Lek, J.

V
FU 1232. TAR LOSSES IN CARBONISATION OF COAL IN THE LURGI REACTOR.
(Paliya (Fuel, Prague), 1955, vol. 35, 2-7; see abstr. in Chem. Abstr., 1955,
vol. 49, 12617, 12618). (L.) Jilek, J.

Jilek, J.

✓ 236. PRESSURE GAS PRODUCED WITH OR WITHOUT REFRactory Lining (1) G7
Jilek, J. (Palva (Fuel, Prague), Aug. 1955, vol. 35, 240, 347). The
efficiencies obtained by omitting the refractory lining are calculated. (1).

Jilek, J.

V Gasification of low-value coals. J. Jilek (Plynoproyekt, Praguo). *Pulini 36*, 80-7(1966). Data are compared of 10 coals and cokes of different grades and from various countries, and their response to burning in Lurgi-Schweizer Otto Bochum, rotating grid furnace, and in Winkler and Fieschi-Winkler generators is given. T. Juricic

CZECHOSLOVAKIA / Chemical Technology. Chemical Products H-22
and Their Application. Chemical Processing of Solid Fossil Fuels.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2438.

Author : Jilek, J.

Inst : Not given.

Title : The Study on a Problem of Complex Chemical-Energetic Utilization of Brown Coal.

Orig Pub: Paliva, 1956, 36, No 7, 216-225.

Abstract: The fundamental technological scheme was examined for the complex chemical - energetic processing of brown coal under Czechoslovakian conditions. A mixture of young brown coals is being sorted, which is composed of two types having the following composition (in %) : moisture 42, ash 12, tar yield 8.7 and calorific value 3300 kilocalories/kilogram. Coal of the O-12

JILEK, Jaromir [Jilek, Jaromir]; ZHUKOV, A.A., inzhener [translator];
SHISHAKOV, N.V., doktor tekhnicheskikh nauk, redaktor; KLYTYNOVA,
K.F., vedushchiy redaktor; MARTYNOVA, M.P., vedushchiy redaktor;
POLOSINA, A.S., tekhnicheskiy redaktor

[New methods of gasification of fuel by oxygen. Translated from the
Czech] Novye sposoby gasifikatsii topliva kislorodom. Perevod s
cheshskogo A.A.Zhukova, pod red. N.V.Shishakova. Moskva, Gos.nauchno-
tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1957. 362 p. (MLRA 10:9)
(Gas producers) (Coal gasification)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3

14
MT

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

CZECHOSLOVAKIA/Chemical Technology - Processing of Solid
Fossil Fuels.

H-22

Abs Jour : Ref Zhur - Khimiya, No 24, 1958, 82970

Author : Jilck, J.

Inst :

Title : The Purification of Ascending Gas by a Rectisol Method.

Orig Pub : Paliva, 1957, 37, No 9, 261-263.

Abstract : The method is based on the application of methanol as the solvent; one cubic meter of the latter at -60°C. adsorbs CO₂ 72 times more than one cubic meter of water at 20°C. The dimensions of equipment are considerably smaller, whereas the process is simplified because in addition to CO₂ adsorption the methanol purifies the gas from the benzene impurity, S-compounds, tar-forming substances and dries the gas. A description of the technological scheme for the purification is given and the savings, resulting from the introduction of the method, are evaluated.

Card 1/1

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and
Their Application. Treatment of Solid Mineral
Fuels.

H

Abs Jour: Ref Zhur-Khin., No 13, 1958, 44531.

Author : Jilek J.

Inst :

Title : Low Temperature Carbonization of Bituminous Shale
in China.

Orig Pub: Paliva, 1957, 37, No 12, 419-421.

Abstract: Presentation of particularized data (with appended
diagrams) relating to vertical gas generators with
distillation shafts for low temperature carboni-
zation and gasification of Fushun shale, having a
shaft diameter of 2.6, 3.0 and 3.35 m. These gas

Card : 1/2

JILEK, J.

COUNTRY : Czechoslovakia F
CATEGORY :

ABC. JOUR. : RZKhim., No. 20 1959, No. 71331

AUTHCR : Jilek, J.
INST. :

TITLE : A Source of High Voltage for Electromigration
Processes

ORIG. PUB. : Chem. listy, 1958, 52, No 5, 1833-1834

ABSTRACT : Description of a source of high voltage
for electrophoresis in paper, with an output of 3000 v
and 1 a, or 5000 v and 0.75 a. The stepless control recti-
fier is a full-wave rectification circuit using UA 1 a
gas-filled, gridless rectifier tubes. -- O. Kressel.

CARD:

3

JILEK, J.

On the all-round effectiveness of utilizing lignite and its products through combustion. (Conclusion) p. 95

PALIVA. (Ministerstvo paliv a Ceskoslovenska vedecka technicka spolecnost pro vyuuziti pri Ceskoslovenske akademii ved) Praha, Czechoslovakia, Vol. 39, No. 3, Mar. 1959

Monthly List of East European Accessions (EEAI), LV, Vol. 8, No. 7, July 1959
Uncl.

JILEK, J.; SLIVA, V.; DAHNELKA, J.

Use of lignite in the gas industry. p. 223.

PALIVA. (Ministerstvo paliv a Ceskoslovenska vedecka technicka spolecnost pro
vyuziti paliv pri Ceskoslovenske akademii ved) Praha, Czechoslovakia, Vol. 39,
no. 7, July 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 11,
November 1959.

uncl.

JILEK, J., dr.

Economy of various methods of pressure gas cleaning.
Paliva 41 no.1:30-40 Ja '61.

JELEK, J., dr.

Examination of the economy of pressure gasification of ash and
sulfur coal. Paliva 41 no.10:299-308 O '61.

1. Plynopprojekt, Praha.

JILEK, Jaromir, dr.

Control of the dispersion of fumes by changing their
temperature. Energetika Cz 12 no.10:521-525 O '62.

1. Plynoprojekt, Praha.

JILEK, J., dr., inz.

Inertization of an explosive gas mixture by impure nitrogen.
Paliva 42 no.10:299-301 0 '62.

1. Plynopprojekt, Praha.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3

RIEDL, R.; BENES, M.; JILEK, J., dr., inz.

Separation of condensates in lignite gasification under pressure.
Pavliva 43 no. 2:42-44 F '63.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

JILEK, J., dr. inz.

Development of lignite pressure gasification in Yugoslavia.
Paliva 44 no. 9:274-277 S '64.

1. Flynoprojekt, Prague.

JILEK, J., dr. inz.

Gasification of solid and liquid fuels in the Koppers-Totzek
generator. Paliva 45 no.2;49-53 F '65.

1. Plynoproyekt, Prague.

CZECHOSLOVAKIA

JILEK, J.O; PELZ, K; VEJDELEK, Z.J; PROTIVA, M

Research Institute for Pharmacy and Biochemistry (Forschungs-
institut fur Pharmazie und Biochemie), Prague

Prague, Collection of Czechoslovak Chemical Communications,
No 1, January 1966, pp 269-278

"Neurotropic and psychotropic substances. Part 7: 2-alkoxy-9-(
(3-dimethylaminopropyliden) thioxanthene and an additional
derivative of prothixene."

CZECHOSLOVAKIA

JILEK, J., TRAVNICKOVA, E., TROJAN, S; Physiological Institute,
Faculty of General Medicine, Charles University (Fysiologicky
Ustav Fak. Vseob. Lek KU), Prague.

"Influence of Hypoxia on Glycogen Metabolism in the CNS in
Ontogenesis."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, pp 112-113

Abstract: Changes in the amount of glycogen and lactic acid in
rat prosencephalon (P) and rhombencephalon (R) caused by 6
minutes of hypoxia at a simulated elevation of 12,000 meters was
investigated. Rats were either adult or 5, 12 or 25 days old.
Between the ages of 12 and 25 days hypoxia causes a decrease of
glycogen in the brain and an increase in P and R. At other ages
no changes were observed. In 12 day old rats lactic acid content
increased by 300%. 1 Czech reference. Submitted at "16 Days of
Physiology" at Kosice, 28 Sep 65.

1/1

- 161 -

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3

Jilek, Josef

Distr: 4E3d

8.11-116

Jilek, Josef, Vodíkové bomby a vývoj počasí. [Hydrogen bombs and weather development]

1-SERIAL 423.654.6

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

JILEK, J.

Seasons of the year.

p. 65 (Meteorologicke Zpravy) Vol. 10, no 3 June 1958. Praha, Czechoslovakia.

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 79 no. 1, Jan 1958

JILEK, JOSEF

✓ 10.4-263 551.577(437.1) 2
Jilek, Josef. Atmosférické srážky v Čechách (1876-1956). [Precipitation in Bohemia,
1876-1956.] Meteorologické Zpravy, Prague, 10(5):133-134, 1957. 2 tables. DWB—
Average precipitation values for Bohemia (average of all stations) are tabulated for every
month from Jan. 1876 to Sept. 1957. Monthly and annual normals are also given in terms
of intervals containing precipitation amounts which occurred in 50% of all cases. Subject
Heading: 1. Precipitation normals 2. Precipitation data 3. Czechoslovakia.—G.T.

JW
YI

JILEK, J.

SCIENCE

Periodicals: METEOROLOGICKE ZPRAVY. Vol. 11, no. 6, Dec. 1958

JIDEK, J. Balance sheet of solar radiation in Prague. p. 165.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5,
May 1959, Unclass.

L 31482-66 FCC GW
ACC NR: AP6023106

SOURCE CODE: CZ/0085/65/000/0C6/0169/0170

AUTHOR: Jilek, Josef

21

ORG: HMU, Prague

B

TITLE: Problems of long term weather forecasting | 2

SOURCE: Meteorologicke zpravy, no. 6, 1965, 169-170

TOPIC TAGS: long range weather forecasting, atmospheric pressure, atmospheric temperature, synoptic meteorology, atmospheric circulation

ABSTRACT: Long term forecasting of weather is extremely difficult. The author believes that the only reliable approach to the problem is the study of the general atmospheric circulation. The forecast should be based on the expected average barometric pressure and temperature, the sequence and type of the individual processes of circulation, and on the synoptic chart. A comparison of Russian, German, British, and the USA long term weather forecasting is made. Particular attention is given to the British method of weather forecasting. [JPRS]

SUB CODE: 04 / SUBM DATE: none

UDC: 551.509.22

Card 1/1mc

JILEK, J.O.; POMYKACEK, J.; JIRKOVSKY, I.; PROTIVA, M.

Synthetic ataractics. X. Improved methods of preparation of
phenoharman. Cesk. farm. 13 no. 5:229-233 Je'64

1. Vyzkumny ustav pro farmacii a biochemii, Praha.

Antihistamine substances—basic aryl ethers, aralkyl ethers, and aralkyl thiethioers. M. Protiv, J. Ilíek, J. Kolinský, V. Rebička, and J. Urban. *Collection Czechoslov. Chem. Commun.*, **13**, 326-339 (1948) (in English).—A series of dialkylaminoalkyl aryl ethers and thio ethers are synthesized and tested as *antihistamine agents*. To 11 g. *t*-*C₄H₉OCH₂OH* in a soln. of 1.0 g. Na in 250 ml. Et₂O/H₂O is added 22 g. *t*-*C₄H₉NH-CH₂Cl*, the mixt., refluxed 1 hr., the pptd. NaCl filtered off, the ale. evapd., the residual oil mixed with H₂O, extd. with Et₂O, and the Et₂O dried and distd. to give *t*-*C₄H₉O(CH₂CH₂NH₂)₂* (**1**), b.p. 165-75°; *di-HCl salt*, m.p. 115°. The antihistamine activity of **1** (expressed as mg. I necessary to neutralize contraction of an isolated guinea pig intestine caused by 0.01 mg. histamine) is 2.4. The compds. listed below are prep'd. in similar manner. The 1st no. following the phys. consts. of the derivs. of each compd. is the antihistamine activity and the 2nd no. present in some cases is the toxicity of the compd. expressed as mg./kg. of the compd. necessary to kill 50% of the test animals (anesthetized).

used, not specified): *1,3-C₆H₁₀(H₂C₆N₂)₂*, *b*, 191–200° (*d*-*HCl* salt, m, 131°); *dipropionate*, *m*, 117–18°, 20°; *1,4-C₆H₁₀(CH₂CH₂N₂)₂*, *b*, 148–82° (*d*-*HCl* salt, m, 155°); *dipropate*, *m*, 184–5°, 60°; *1,2,3-C₆H₁₀(CH₂CH₂N₂)₂*, *d*-*HCl* salt, *m*, 197°; *tripropionate*, *m*, 150–7°, 101°; *1,3-C₆H₁₀(CH₂CH₂N₂)₂*, *d*-*HCl* salt, *m*, 101–6° (*parade*, *m*, 63–35°, 101–5°); *benzyl 2-(1-piperidinyl)ethylester*, *b*, 184–5°; *benzyl 167–8° (*HCl* salt, *m*, 109–8.5°); *HBr* salt, 144–5°; *methiodide*, *m*, 187–8°; *chloroformate*, *m*, 123–5°, 0.063(0.018, 100%); *Ph₂CHOCH₂CH₂N₂*, *b*, 170–8° (*d*-*HCl* salt, *m*, 208–8.5°, 0.210, 100%); *Ph₂CHOCH₂CH₂N₂**HCl*, *m*, 141°, 0.06, 87.5%; *Ph₂COCH₂CH₂N₂*, *b*, 200–6° (*HCl* salt, *m*, 188.5–6.5°, 1.0); *d*-*1,2-diphenyl-1-(2-dimethylaminomethyl)ethoxyethane*, *b*, 155–63° (*HCl* salt, *m*, 129°, 2.5); *d*-*1,2-diphenyl-1-(2-dimethylaminoethyl)ethane*, *b*, 160–71° (*HCl* salt, *m*, 116–17°, 1.1); *d*-*1,2-diphenyl-1-[2-(2-dimethylaminomethyl)ethyl]ethane*, *b*, 100–5° (*HCl* salt, *m*, 121–4°, 0.220, 8.0); *benzyl 2-(1-piperidinyl)ethyl sulfide**HCl*, *m*, 170–7.5°, 1.1; *benzyl 2-diethylaminomethyl sulfide**HCl*, *m*, 100–52°, 0.5, 2.32. D. A. S.*

APPENDIX A: BIBLIOGRAPHICAL LITERATURE CLASSIFICATION

C. 1.

15

Antihistamine substances. X. Polycyclic analogs of benzhydryl ethers. J. O. Jick, J. Urban, and M. Protiva. *Chem. Listy* 43, 56-8 (1949); cf. *C.A.* 43, 3810a and preceding abstract.—The following basic ethers are prepared by the usual methods. *n-(1-Naphthyl)benzyl ethers:* 2-dimethylaminobenzyl, 70% yield, *b.p.*, 170-02° (*HCl salt*, m. 103-3°); *picrate*, m. 148-0°; 2-diethylaminobenzyl homolog, 80-5%, *b.p.*, 190-201° (*HCl salt*, m. 140-1°); 2-(1-piperidyl)benzyl, 47-5%, *b.p.*, 223-6°. *9-Fluorobenzyl ethers:* 2-diethylaminobenzyl, 60-7%, *b.p.*, 160-170° (*methiodide*, m. 211°); 2-diethylaminocinnamyl, 73-5%, *b.p.*, 170-5° (*HCl salt*, m. 141-15°); 2-(1-piperidyl)cinnamyl, *b.p.*, 180-205° (*HCl salt*, m. 161-2°); 2-(4-morpholinyl)cinnamyl, *b.p.*, 170-200° (*HCl salt*, m. 177°). The antihistamine activities of these products are relatively low (20-100 times less than Benzyl). **XI. Ethers derived from substituted 2-aminocyclohexanols.** V. Reficha. *Ibid.* 103-13. *2-Dimethylaminocyclohexanol* (*I*), prep'd. by heating equimol. quantities of cyclohexene oxide and Me₂NH in EtOH 12 hrs. at 100°, *b.p.*, 108-212° (yield 80%). In a similar manner have been prep'd. the following analogs of *I*: 2-diethylamino (*II*), 15 hrs. at 120° 00°, 85%; *b.p.*, 223-7° (*HCl salt*, m. 172.5-3°); 2-(1-piperidyl) (*III*), 81%, *b.p.*, 131-5° (*HCl salt*, m. 283-2° (decomp.)); *picrate*, m. 154-5°; 2-(4-morpholinyl), 92%; *b.p.*, 145-7°, *m. 38-9°* (*HCl salt*, m. 226-6°; *picrate*, m. 145-6°). Heating 1 mol. 2-chlorocyclohexanol with 2 mols. Et₃NH in BuOH 14 hrs. at 150-0° also gave 92% *II*, *b.p.*, 223-30° (*HCl salt*, m. 172-2.5°). *II* with SOCl₂ in *CaH* gives 65% of the unstable 2-diethylaminocyclohexyl chloride (*IV*), *b.p.*, 103-6° (cf. *C.A.* 40, 2151). Similarly *III* gives 2-(1-piperidyl)cyclohexyl chloride, *b.p.*, 145-7° (*HCl salt*, m. 103-0°). To 0.95 g. Na in 30 ml.

RtOH are added 3.8 g. phenol and then 7.5 g. IV in RtOH, the mixt. refluxed 6 hrs., the RtOH evapd., the residue extd. with dil. HCl, the base liberated by NaOH, extd. with Et_2O , and the Rt_2O soln. dried and distd. to give 23% 1-phenyl-2-(diethylamino)lohexene, b.p. 154°² (picrate, m. 116-10°). Similarly have been prep'd. 1-hexyl-2-(diethylamino)lohexene, 14%; b.p. 178-182° (HCl salt, m. 280-1°); *para*, m. 137.5-3°, and, from PhCH_2NH_2 and IV in *Cellos*, 1-hexyl-2-(diethylamino)cyclohexane (V), yield 17%, b.p. 160-61° (picrate, m. 100-7°). V was obtained also in 38% yield from the Na deriv. of II and Ph- CH_2Cl in C_6H_6 . To 21.6 g. I and 20.6 g. dried NaCO₃ was added slowly with stirring at 120° 37.4 g. Ph- CH_2Br , the mixt. heated at 120-40° 4 hrs., the mixt. dill'd with C_6H_6 , the picrid. NaBr filtered off, the brown extd. with dil. HCl, liberated again with NaOH, extd. with Rt_2O , and the Rt_2O soln. dried and distd. to give 54% 1-hexyl-2-(dimethylamino)cyclohexane, b.p. 177-84° (HCl salt, m. 160-1°). The following derivs. of 1-hexyl-2-(diethylamino)lohexene were prep'd. similarly: 2-diethylamino, 30%, b.p. 182-4° (HCl salt, m. 181.5-3°); 2-(1-piperidyl), 37%, b.p. 230°, m. 51-2° (HCl salt, m. 102-2.5°; methiodide, m. 140-7°); 2-(4-morpholinyl), 21%, b.p. 215-18°, m. 49-51° (HCl salt, m. 177-9°). All the products are assumed to have the trans configuration. They show a 50-100 times lower level of anti-histamine activity than benadryl. XII. Piperidine and morpholine analogs of antergan, pyribenzamine, and neotergan. V. Rebeca and M. Protiva. *Ibid.* 170-9.—From PhNHCH_2Ph , 2-benzenimidopyridine (*picrate*, m. 164.5°), and 2-(*p*-methoxybenzimidyl)pyridine (*picrate*, m. 188°), the compds. listed below have been prep'd. by the NaBH₄ condensation with 2-(1-piperidyl)ethyl chloride and $\text{Me}_2\text{NCH}_2\text{CH}_2\text{Cl}$ in C_6H_6 (cf.

(over)

P.A.

SOME SUBSTITUTED 4-ETHOXYBENZAMIDINES. J. O. Jilek, M. Porobitka, and M. Protiva. Chem. Listy 43, 211-13 (1949).--p-Ethoxybenzamidine, m. 265-6-6.5° (from ether-EtOH), was prep'd. from p-EtOC₆H₄CH through Et p-ethoxybenzimidate-HCl (I), m. 207°. N-Methyl-p-ethoxybenzamidine, prep'd. from 1 mol. I and 8 moles MeNH₂ (30 hrs. at room temp.), m. 186-6.6°. The N, N-di-Me compd., prep'd. analogously from I and Me₂NH, m. 227-8° (from EtOH-Et₂O). p-(2-Hydroxyethoxy)benzonitrile (II), obtained from 0.25 mole Na salt of p-EtOC₆H₄CH AND 0.25 mole HOCH₂CH₂Cl (yield, 73%), m. 87.5° (from C₆H₆). p-(2-Hydroxyethoxy)benzamidine (III), m. 237° (from 90% EtOH), (HCl salt, m. 232-6°), was prep'd. from II through Et p-(2-hydroxyethoxy)benzimidate-HCl, m. 127-8° (decompn.) (overall yield, 75%). p-(2-Chloroethoxy)benzamidine (IV) was obtained from III. HCl with ClOCl₂ or POCl₃. IV. HCl, m. 259-60° (from MeOH). None of the compds. described showed antihistamine properties. M. Hudlický

12

Class A

Synthesis of a new histamine analog, 2-(2-aminoethyl)-dihydrogyloxaline. J. O. Jilek and M. Protiva (United Pharm. Works, Prague). Collection Czech. Chem. Communs., 15, 699-704 (1950) (in English).—2-(2-Aminoethyl)-1,5-dihydrogyloxaline (I) possesses no marked histamine or antihistaminic activity. Since I contains the structural fragment —NH₂CX₂NH₂ (X = (M. Protiva, from aq. EtOH); deprote., of 1; d-HCl salt, in 219-21° Cus. opis czechoslovenské 62, 143 (1949)) necessary for (2) (on a larger scale); III, EtOH, and IV were refluxed 1 hr. in EtOH. It is not a sufficient condition for histamine activity. All reported in ps. are cor. and analytical samples were dried reduced pressure (water bath), the residue taken up in 30 ml. over P₂O₅. 2-(2-Aminomidoethyl)-4,5-NH₂CH₂Cl(OEt)₂: NH₂HCl (III) (43 g.) in 250 ml. dihydrogyloxaline (II) was prep. by 2 methods: (1), Ba(OEt)₂ refluxed (water bath) 6 hrs. with 10 g. (CH₂NH₂)₂ (IV), (CH₂NH₂)₂HCl (V) filtered off, the residue treated with picric acid (VI) (30 g.) in warm EtOH, and allowed to stand in the cold; the picrate (VII) of II, filtered off and recrystd. from 700 ml. EtOH and 400 ml. Me₂CO, m. 200-2.5°. VII (41 g.) was decompd. with 400 ml. 3 N HCl, the liberated VI taken up in PHNO₂ (VIII), the VI and VIII removed by extn. with Et₂O, the remaining acidic soln. refluxed 4 hrs., the Ba(OEt)₂ filtered off, the filtrate evapd. to dryness, and the residue crystd. from EtOH to yield a mixt. (X) of di-HCl salts of I and V. X could not be resolved by crystn. from 90% EtOH, therefore 6.5 g. was allowed to stand 4 days (occasional stirring) in 100 ml. NaOK soln. (1.7 g. Na), the

over
(continued)

1951

Chem A

11

XV, needles, m. 218° (decomp., from EtOH). A soln of 20 g. **XVII** in 250 ml. NaOEt (contg. 28 g. Na) was stirred 30 min., filtered the next day, and the filtrate evapd under reduced pressure, giving **XV**, prisms, m. 158-9° (from EtOH). **XV** is not stable and turns red-brown in air. Trituration with EtOH and filtration of the compact mass resulting from the treatment of 23 g. $NCC_6H_5CO_2Et$ with 0 g. **IV** yielded 18 g. N,N' -bis(cyanocetyl)methyl-*N*-amine, m. 102-3° (from EtOH). Recryst. from PrOH (contg. charcoal) of the melt resulting from heating (200°, 3 hrs., oil bath) $NC(CH_2)_2CO_2Et$ and ethylenediamine-p-toluenesulfonate gave an unidentified product, white needles, m. 241-2°. $\sigma\text{-C}_6H_4(CO_2Et)_2CH_2CN$ (17 g.) in 50 ml. dry CHCl and 3 ml. EtOH was add. with dry HCl at 0°, the mixt. allowed to stand 10 days, and the solvents distd. off; the crystals of **XII** soften 95-100° (slow heating), recryst. and finally m. 230°. An attempt to prep. *N*-substituted derivs. of **I** by the Mannich reaction between 1-benzyl-lysidine and piperidine or Bu₄NH (as HCl salts) and HCHO was unsuccessful. The acid succinate (**XVIII**) deriv. of lysidine, m. 182-3° (from EtOH). A suspension of **XVI** (15 g.) in 50 ml. EtOH was treated with 200 ml. 8% alc. NH₃ (shaking, 30 min.), and the soln. concd. after several hrs., yielding 5.5 g. α -(carbamylamidocarbonyl)acetamide-HCl (**XIX**), m. 176-7° (from aq. EtOH). The **XIX** prep'd above differs in behavior upon heating from the **XIX** prep'd by Pinner (Ber. 28, I, 479(1895)). Lawrence Rosen

1951

10

CA

1-Carbethoxymethyl-3-acetylpyridinium bromide. J. O.
Bek, Chem. Listy 44, 41(1950).—3-Acetylpyridine (1.8
g.) and 2.3 g. BrCl₃CO₂Bt were heated 30 min. with
stirring in 2 ml. Cetol on a steam bath giving 3.3 g. 1-
carbethoxymethyl-3-acetylpyridinium bromide, m. 124-6°, after
M. Hudlický
a few crystals from Me₂CO.

CA

16

N-Substituted 4-amino-3,3-diphenyl-3-butanoines. J. O. Jilek and M. Proluva. *Chem. Listy* 44, 49-51 (1950).
4-(1-Piperidyl)- (I), 4-(4-morpholinyl)- (II), and 4-dimethylamino-3,3-diphenyl-3-butanoine (III) were prep'd. by the Mannich reaction from Ph_2CHAc (IV). To prep. IV, Ph_2CHAc was brominated in ether to give 93% Ph_2CHBrAc , which gave 65% IV by heating with CaH_2 and AlCl_3 . Another method for prep. IV was the reaction of Ph_2CHCOCl with MeCdCl prep'd. from MeMgBr and CdCl_2 (yield 59%). $\text{C}_6\text{H}_5\text{NHCl}$ (3.3 g.), 5.7 g. IV, 1.2 g. (CH_3O), and 4 drops concd. H_2SO_4 were refluxed on the steam bath 1 hr., 0.75 g. (CH_3O) added, heating continued 2 hrs., and the caust. poured into 100 ml. Me_2CO to give 2.85 g. I, m. 195-6°; an addnl. 1.8 g. was obtained from the mother liquors. The yield of I, m. 204-5° (from EtOH), b.p. 183-6° (decompn.), was 51%. II (45%), m. 192.5, was prep'd. analogously from morpholine-HCl. III (10%), m. 165-6° (from acetone), was prep'd. from $\text{Me}_2\text{NH.HCl}$. A better yield (32%) was obtained when 7 g. IV, 4 g. $\text{Me}_2\text{NH.HCl}$, and 1.5 g. (CH_3O) were refluxed 45 min. at 140° in 20 ml. AmOH and the caust. treated with an equal vol. of ether. The salt was purified as free III, liberated by NaOH.
M. Hudlický

JILEK, JIRI O.

Chemical Abst.
Vol. 43 No. 5
Mar. 10, 1954
Organic Chemistry

Antihistaminic substances. XXVI. Some new heterocyclic derivatives of ethylenediamine. Miroslav Protiva, Jiří O. Jilek, Zdeněk J. Vejdělek, and Otto Exner (Pharm.-Biotech. Research Inst., Prague, Czech.). *Chem. Listy* 46, 551-5 (1952); cf. *C.A.* 47, 4306a; 48, 146e.—Alkylation of 4-phenyl-1,2,3,4-tetrahydroquinoline (I), acridan (II), and 2-phenyl-2-methyl-4-azaindole (III) with *N*-substituted aminonalkyl chlorides give new heterocyclic derivs. of (CH_2NH_2), of which only acridan derivs. showed antihistamine activity. 4-Phenylquinoline (10 g.) reduced with 16.5 g. Na in 185 ml. boiling BuOH gave, through its HCl salt, m. 209-15°, 3.7 g. (37%) I, m. 61-7° (from EtOH). II, m. 168-70°, was prep'd. in 71% yield by the reduction of 9-acridanone with Na in AmOH. For the prep'n. of III, 3-nitro-2,6-lutidine, m. 37°, b. 220-30°, was hydrogenated over Raney Ni to give 70% 3-amino-2,6-lutidine, m. 123°, b. 128-35°, this treated with BzCl yielded 70% 3-benzamido-2,6-lutidine, m. 171°, which was cyclized to III, m. 280° (decompn.), with NaOEt in 71% yield. I, II, and III with NaNH₂ and (alkylamino)-alkyl chlorides gave the following *N*-derivs. of I (% yield and b.p.): I, Me₂NCH₂CH₃, 48, b.p. 180-00° (HCl salt, m. 182.5°); Et₂NCH₂CH₃, 39, b.p. 165-75° (HCl salt, m. 182.5°); (2-piperidinoethyl), 76, b.p. 180-200° (HCl salt, m. 239-40°); (2-morpholinooethyl), 27, t, 180-200° (HCl salt, m. 225-7.5°). Derivs. of II: Me₂NCH₂CH₃ (IV), 45, b.p. 108-200° (picrate, m. 165-6°); Et₂NCH₂CH₃, 58, b.p. 220° (picrate, m. 200-71°); Me₂NCH₂CHMe (V), 61, b.p. 183-4°; Et₂NCH₂CHMe, 36, b.p. 170-11° (picrate, m. 168°). Deriv. of III: Me₂NCH₂CH₃, 45, b.p. 200-4° (2HCl·2H₂O), m. 213-14°; dipicrate, m. 212°. The disuccinates of IV and V showed 7 times and 2.5 times the antihistaminic activity of Benadryl. M. Hudlický.

JILEK, J. O.

(2)

✓ Protiva, M., and Jilek, J. O.: *Zaklady pracovni techniky v organicko-chemicke-laboratori*. Prague: SNTL, 1953.
120 pp. Kcs. 8.20. Reviewed in *Chem. Listy* 48, 324
(1954).

JILEK, J.O.; BOROVICKA, M.; PROTIVA, M.

Synthetic antispasmodics. Part 5. Cyclic analogues of substances of the
3,3-diphenylpropylamine series [in English with summary in Russian].
Sbor. Chesk. khim. rab. 18 no.2:257-269 Ap '53. (MIRA 7:6)

1. Pharmaceutical and Biochemical Research Institute, Prague.
(Antispasmodics)

JILEK, J., PROTIVA, M.

"Parasympathomimetics. I." "Synthetic spasmolytics." VII. "Synthesis of a new sulphur analogue of acetylchlorine and sulphonium salts of the "Tifene" type. p. 219. (CHEMICKÉ LISTY, Vol. 47, #2, Feb. 1953, Czechoslovakia)

SO: Monthly List of Russian Accessions, Library of Congress, August 1953, Uncl.
East European Vol. 2, #8

JILEK, JIRI O.

CZECH

Synthetic experiments in the estrogenic horinone series.
 II. Synthesis of crystalline ethyl 2-methyl-2-carbethoxy-5-(*p*-methoxyphenyl)cyclohexan-1-one-6-acetate. Jiri O. Jilek,
 Vladislav Simák, and Miroslav Protiva (Farní inženýr
 výzkumného ústavu, Prague, Czech.). *Chem. Listy* 47, 874-
 80 (1953); *Collection Czechoslov. Chem. Commun.* 19, 233-9
 (1954) (in English); cf. *C.A.* 47, 8034c. — The Friedel-Crafts
 reaction of *Ei*-2-methyl-2-carbethoxy-6-cyclohexen-1-one-6-
 acetate (I) with MeOPh gave *Ei*-2-methyl-2-carbethoxy-5-(*p*-
 methoxyphenyl)cyclohexan-1-one-6-acetate (II) which was
 transformed to 2-methyl-5-(*p*-methoxyphenyl)-1-cyclohexan-
 one-6-acetic acid (III). 2-Carbethoxycyclohexanone (75
 g.), 10 g. Na dust, and 250 ml. C₆H₆ refluxed 4 hrs., the
 mixt. treated with 75 g. BrCH₂CO₂Et, refluxed 6 hrs.,
 decompd. with 200 ml. dil. HCl, and the C₆H₆ layer washed,
 dried, and distd. gave 84 g. (74%) *Ei*-2-carbethoxy-cyclo-
 hexanone-6-acetate (IV), b₄ 166-68°; [CICH₂CO₂Et] gave
 only 80% yield. Similarly was prepdt. the *di-Me ester* (42%),
 b₄, 153-5°. IV (24 g.) refluxed 8 hrs. with 2.4 g. Na and
 35 ml. EtOH gave, after acidification and extn. 13 g. (54%)
Ei-2-carbethoxycyclohexanone-6-acetate (V), b₄, 130-45°.
 V (13 g.) refluxed 7 hrs. with 70 ml. C₆H₆ and 1.2 g. Na
 dust, cooled, treated with 10 ml. MeI, let stand 2 hrs. at
 room temp., then refluxed 2 hrs., yielded 8.5 g. (63%) *Ei*-
 2-methyl-2-carbethoxycyclohexanone-6-acetate (VI), b₄, 110-
 20°, also obtained (b₄ 166-7°), without isolating V, by
 refluxing 20 g. IV 8 hrs. with 2 g. Na in 30 ml. EtOH.
 Bromination of VI in CCl₄ yielded 84% *Ei*-2-methyl-2-
 carbethoxy-6-bromocyclohexanone-6-acetate (VII), b₄, 144-7°.

Bromination of VII in refluxing n-Hexane, b₄, 147-61°, resp. 74% and 85% b₄, 111-2°,
 to 5 to 0° with 80 g. AlCl₃ and with HCl and worked up
 yielded 18 g. recd. 1 and 2 g. (80%) b₄, 100-101° m.
 b₄ (from C₆H₆). Saponified 0.4 g. II by refluxing 1 hr.
 with aq. NaOH gave 0.3 g. II, m. 138°. Sapon. of IV
 with NaOH in MeOH gave 40% *Ei*-2-methyl-2-carbethoxy-
 cyclohexanone-6-acetate (VIII), b₄, 162-8°. Refluxing 4.8 g. VIII with
 0.5 g. Na dust and 10 ml. C₆H₆ 18 hrs. in a N atm. (lit.
 the mixt. with 10 ml. C₆H₆) and methylating in 6 hrs. with
 10 ml. MeI gave 1.6 g. (65%) *Ei*-3-methyl-2-carbomethyl-
 cyclohexanone-6-acetate, b₄, 115-24°, which on bromination
 in CCl₄ yielded *Ei*-2-methyl-2-carbomethyl-1,3,4-tetrahydro-
 hexanone-6-acetate, b₄, 90-3°. III. Synthesis of racem: 1-
 ethyl-2-methyl-3-(*p*-methoxy-1,2,3,4-tetrahydro-2-phenyl-
 thienecarboxylic acid). Miroslav Protiva and Ludvík Novák,
Chem. Listy 47, 831-4 (1953). *Ei*-2-methyl-2-methoxy-3-nitroxy-1,1-J-
 tetrahydro-3-phenylthienecarboxylate, m. 136-71 (I), was
 obtained by the following series of reactions: 1-naphtho-
 CO₂H, m. 172° (quin.), → 1,1-MeOC₆H₄COCH₂CH₂CO₂H, m.
 120° (70%) → 1-oxo-2-methoxy-1,1-J-tetrahydrothien-
 thene, m. 98-100° (60%) → 1-oxo-2-methoxy-1,2,3,4-
 tetrahydro-3-phenylthienecarboxylate, m. 123-4° (90-95%) →
 Me 1-oxo-3-methoxy-1,2,3,4-tetrahydro-3-phenylthienecar-
 boxylate, m. 118-21° (60%). I give estrogenically active
Ei-ethyl-2-methyl-3-nitroxy-1,1-J-tetrahydro-3-phenylthien-

212

Jiri O. Jilek

carboxylate (III). The Grignard reaction of 12 g. I in 100 ml. Et_2O with PhMgBr (need. from 1.0 g. Mg and 5 ml. Et_2O) yielded 8.0 g. (10%) *E*-1-methyl-1,2,3,4-tetrahydro-1-phenylhexa-2,4-dienecarboxylate, m. 100° (from MeOH), dehydrated by boiling 1 hr. with POCl_3 in $\text{C}_6\text{H}_5\text{N}$, gave 72% *Me* 1-ethyldene-2-methyl-2-methoxy-1,2,3,4-tetrahydro-2-phenanthrenecarboxylate (III), m. 117°, saponified by evapn., with KOH in dil. Et_2O at 140-70° to 80% free acid m. 92.5° (from Me_2CO) which, hydrogenated in dil. NaOH 4 hrs. at 50° and 80 atm. initial pressure over Raney Ni, gave after acidification 85% II, m. 178° (from Me_2CO and MeOH). Refluxing 0.2 g. III 1 hr. with 1 g. Raney Ni in 20 ml. MeOH gave 0.17 g. (85%) *E*-analog of III, m. 147° (from MeOH). IV.

Synthesis of 9a-methyl-1,2,3,4,4a,9a-hexahydro-9-fluorenone. *Ibid.* 883-8. Cyclization of the chloride of 1-methyl-2-phenylcyclohexanecarboxylic acid (I), prep'd. by a series of reactions from Et-2-methylcyclohexane-2-carboxylate (II), yielded 9a-methyl-1,2,3,4,4a,9a-hexahydro-9-fluorenone (III). II, m. 112° (30.8 g.) in 30 ml. Et_2O boiled with PhMgBr (from 5.3 g. Mg and 31.4 g. PhBr) in 30 ml. Et_2O) gave 67.74% *E*-1-methyl-2-phenyl-2-hydroxy-cyclohexane-1-carboxylate, b.p. 120°, dehydrated with POCl_3 in $\text{C}_6\text{H}_5\text{N}$ to 72% *E*-1-methyl-2-phenyl-2-oxohexene-1-carboxylate, b.p. 110° (IV). Sapon. of IV with KOH in dil.

Et_2O at 140-80° gave 80% free acid (V), m. 128° (from Me_2CO and MeOH). Hydrogenation of V over Raney Ni at 0° and 1 atm. gave 70% *E*-1-methyl-2-methoxy-1,2,3,4-tetrahydro-1-phenylhexa-2,4-dienecarboxylate (VI), m. 117°, obtained in almost quant. yield by the cyclization of VII in aq. KOH 3 hrs. over Raney Ni at 0° and 1 atm. with 100 ml. Et_2O treated 90 min. with 5.5 g. SOCl_2 , the Et_2O with 100 ml. $\text{C}_6\text{H}_5\text{N}$, the solution with 8 ml. SnCl_4 , decoupled with 100 ml. H_2O , cooled; shaken 3 min. with 8 ml. SnCl_4 , filtered, and 50 ml. HCl, and m. org. layer evapd. gave 70% (67%) III, b.p. 145-7°. *E*-1-methyl-2-phenyl-2-oxohexene-1-carboxylate, b.p. 110° (IV). M. Hull, 29.

JILEK, JIRI, O

Ganglionic blocking agents. I: Sulfonium analogs of the lower methonium iodides. Miroslav Fratovič, Jiří Jilek, and Otto Exner (Furn. biokem. výzkumu ČSAV) [vol. 47, 600-611] - AS 6

EXNER, O.; SIMAK, V.; JILEK, J.O.; PROTIVA, M.

Synthesis in the estrogene hormone group. Part 1. m-methoxyphenylacetylene
[in English with summary in Russian]. Sbor.Chekh.khim.rab. 19 no.2:330-
332 Ap '54. (MLRA 7:6)

1. Pharmaceutical and Biological Research Institute, Prague.
(Estrogens)

JILEK, J.O.; SIMAK, V.; PROTIVA, M.

Synthesis in the estrogenic hormone group. Part 2. Synthesis of
crystalline ethyl 2'-methyl-2-carbethoxy-5-(4-methoxyphenyl) cyclohexan-
1-one-6-acetate [in English with summary in Russian]. Sbor.Chekh.khim.
rab. 19 no.2:333-339 Ap '54. (MLRA 7:6)

1. Pharmaceutical and Biochemical Research Institute, Prague.
(Estrogens)

JILÍK, Jiří O.

CZECH

Antihistaminic substances. XXXI. Contribution to the
mechanism of the antihistaminic activity. Simple benzyl-
ammonium and benzhydrylaminium salts. ~~Mácha~~
Protiva, Jiri O., Šílek, Otto, Exner, Vilmos, Borovicka, Iva.
Plul, Vladislav, Simáček, Václav, Sedivý, Bohumil. Institute of
Chem. Research Inst. Prague. Collection Czechoslov. Chem.
Chem. Commun., 19, 32-33 (1964) (in English). See C.A.
49, 248c. XXV. Kinetics of the hydrolysis of antihista-
minics of the benzhydryl type. Eduard Kačík, Franti-
šek Mácha, Otto Exner, and Miroslav Protiva. *Ibid.*
970-81. See C.A. 49, 2425d. E.I.C.

JILEK, J.; POMYKACEK, J.; PROTIVA, M.

"Antihistamine Substances. XXXVI. Preparation of Some P-Substituted
Analogues of Antistine", P. 232, (CHEMICKE LISTY, Vol. 48, No. 2, Feb. 1954,
Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

JILÉK, JIRI B.

CZECH

Reaction of ethyl α -carboxybutyromide with chloride and with ammonium chloride with ammonia. [II] O. Ille & Vladimír Michálek. (Výzkumy v oblasti organického bločkového chemikařství.)

[Chem. Listy 48, 1210-14 (1954).] Treatment of $\text{EtOOC}(\text{CH}_2)_3\text{COEt}$ (I) with $\text{NH}_3 \cdot \text{HCl}$ (1) and $\text{EtOOC}(\text{CH}_2)_3\text{CONH}_2$ (II) gave a mixt. of $\text{EtOOC}(\text{CH}_2)_3\text{CONH}_2$ (III), $\text{EtOOC}(\text{CH}_2)_3\text{CONH}(\text{NH}_3^+)$ (IV), and $\text{EtOOC}(\text{CH}_2)_3\text{CONH}_2 \cdot \text{NH}_3^+$ (V). (EtOOC) $_{n-1}\text{CH}_2\text{CONH}_2$ (VI), and $\text{EtOOC}(\text{CH}_2)_3\text{CN}$ (VII) (21.3 g.) was added to 11.2 g. KOH dissolved in 30 ml. abs. EtOH, the mixt. evaptd. in vacuo to remove EtOH residue acidified with 20% concd. HCl to remove EtOOC in vacuo at 50°, the residue mixed with 100 ml. abs. KCl filtered off, the EtOOC distd. off in meso residue heated 1.5 hrs. at 150-150° (decomposition point) of the residue with Et₂O and washing the ext. with 10% Na₂CO₃ gave 8.3 g. (40%) Et₂O $\text{C}(\text{CH}_2)_3\text{COEt}$ (VIII) (242.7%). Satd. the soln. of 5 g. VIII in 50 ml. EtOH and 50 ml. CHCl₃ with HCl at 0° yielded a salt of 1 ml. 50-93% (decomp.). Treating 9 g. salt of VIII with 10 ml. aq. NH₃ (d. 0.93) and evaptd. to dryness in vacuo after 18 hrs. yielded 0.7 g. III.

5181 D. T. L. 15 K
(from EtOH). In another crut., IV, obtained in yield 100%
III, m.p. 101-8° (from EtOH). Treating 2 g. HCl with 10 ml.
with 20 ml. 7% $\text{AgO}(\text{C}_2\text{H}_5)_2\text{NHF}$ and warming, the solvent, diluted
0.1 g. III, $\text{Cu}(\text{OOCCH}_3)_2\text{CO}_2\text{H}$ (m. 200°, b.p. 140-4°)
was added to 19.5 g. KOH in 700 ml. H_2O , the soln. treated
with 42.8 g. AgNO_3 in 500 ml. H_2O , the Ag salt filtered,
dried 4 hrs. at 100°, finally 3 hrs. at 110° and 1 min. to give
64 g. $\text{EtO}(\text{C}_2\text{H}_5)_2\text{O}_2\text{Ag}$. This was suspended in 10 ml.
 CCl_4 , treated during 1 hr. with 10 ml. (31.8 g.) Br_2 , then the
filtering 30 min., the Ag salt removed, washed with CCl_4 , the
filtrate washed with 30 ml. 10% Na_2CO_3 , the CCl_4 dried, 23
ml. and the residue fractionated to give 23.5 g. $\text{EtO}(\text{C}_2\text{H}_5)_2\text{O}_2\text{Br}$
and the residue fractionated to give 23.5 g. $\text{EtO}(\text{C}_2\text{H}_5)_2\text{O}_2\text{Br}$
(VII), b.p. 101-9°, b.p. 29-3°. Adding 23 g. VII in 10 ml.
EtOH to a soln. of 14 g. KCN (91%) in 40 ml. H_2O and 70
ml. EtOH at 30°, refluxing the mixt. 45 min., distg. off the
EtOH, extract the soln. with 100 ml. Et_2O , and then the
extract yielded 12 g. $\text{EtO}(\text{C}_2\text{H}_5)_2\text{O}_2\text{CN}$ (VIII), b.p. 125-40°.
Satg. the soln. of 16.5 g. VIII in 9 ml. abs. EtOH and 10 ml.
 CHCl_3 at 0° with HCl; allowing to stand 4 days at room
(temp., distg. off the CHCl_3 in vacuo at 50°, and adding 60
ml. Et₂O to the residue gave 29.5 g. II in 35-19°. If
soaking 8 hr. II in 40 ml. NH_3 (d. 0.93) gave, after 33
hrs. at room temp. 4.8 g. V, m. 217-30° (from H_2O). The
analogous reaction with alk. III, gave no identified
product.

JIKEL, JIRI O.

Syntheses in estrogenic hormone group. VII. Crystalline-
methyl-2-methyl-2-carbomethoxy-5-(*p*-methoxyphenyl)cyclohexane-6-acetate and attempts to cyclize stereoisomeric
2-methyl-5-(*p*-methoxyphenyl)cyclohexanone-6-acetic
acids. Jiri O. Jilek and Miroslav Protić. (Výzkumný
ústav farm. biologem, Praha). Chem. Listy 49, 90-105
(1955); Collection Czechoslov. Chem. Commun. 20, 765-76
(1955) (in German); cf. C.A. 49, 11508. —Resterification of
5 g. Et₂2-methyl-2-carbethoxy-5-(*p*-methoxyphenyl)cyclohexan-
one-6-acetate, (I), m. 84°, by refluxing 2 hrs. with 42.5 g.
MeOH and 0.07 g. Na, decomp., the cooled mixt. with
750 ml. H₂O, extg. with Et₂O, evap. the ext., and dis-
solving the residue (4.8 g.) in 20 ml. 80% aq. MeOH, and
cooling yielded 4.2 g. Me 2-methyl-2-carbomethoxy-5-(*p*-
methoxyphenyl)cyclohexanone-6-acetate, m. 97° (from 83%
MeOH). Separating 35 g. liquid I (the mother liquor from
the crystn. of I) (C.A. 49, 1970) by refluxing 10 hrs. with 28
g. NaOH in 250 ml. H₂O, dilg. the mixt. with 250 ml. H₂O,
acidifying with HCl, filtering off the 6 g. of crystals (isomer
IIa), m. 208-9° (from EtOH), and extg. the soln. with
Et₂O gave 7 g. stereoisomer (IIb), m. 138° (from C₆H₆), of
2-methyl-5-(*p*-methoxyphenyl)cyclohexanone-6-acetic acid.
Adding 5 g. IIa to 25 g. polyphosphoric acid (160°), heating
the mixt. 10 min. at 150°, cooling dilg. with 100 g. ice, and
extg. with Et₂O gave 4 g. of a lactone (IIIa) of 3-methyl-6-
(*p*-methoxyphenyl)-2-hydroxy-1-cyclohexene-1-acetic acid, m.
91° (from 80% EtOH), which regenerated IIa on alk. hy-
drolysis. Similar treatment of 5 g. IIb by heating with 25 g.
polyphosphoric acid 2 hrs. at 100° gave 4 g. crude and 2.2 g.
pure stereoisomer (IIIb), b.p. 210-15° alk. hydrolysis of
which gave IIb. Catalytic hydrogenation of 2 g. IIIa in 40
ml. AcOH over Pd in the presence of 2 ml. 80% HClO₄ gave
0.8 g. of an isomer (IVaa) of a satd. lactone of 3-methyl-6-(*p*-
methoxyphenyl)-2-hydroxycyclohexaneacetic acid, b.p. 185-
90°, m. 93-4° (from 80% MeOH). Similar treatment of
2.2 g. IIIb in 50 ml. AcOH and 1.5 ml. HClO₄ in the presence
of Pd catalyst (added twice during the hydrogenation) gave

1.15 g. isomeric lactone (IVb), b.p.
105-200° (bath temp.). Reduction of 2 g. IIIa with 1.5 g.
LiAlH₄ in 160 ml. Et₂O by refluxing 30 min. gave after
chromatography 1.8 g. 2-methyl-5-(*p*-methoxyphenyl)-6-
(3-hydroxyethyl)cyclohexanone, b.p. 190-20°, III ((1.8 g.)
was transformed with 0.7 g. PCl₅ in 30 ml. C₆H₆ to its chlo-
ride which, treated with 1 ml. NaCl 3 hrs. at 0°, gave, after
decomp., with 15 ml. 3N HCl, 0.05 g. IIa and 0.10 g. of a
lactone (Va) of 3-methyl-6-(*p*-methoxyphenyl)-2-hydroxy-1-
cyclohexaneacetic acid, b.p. 200-10°, m. 116-17° (from Me-
OH), sapon. of which gave IIa. Catalytic hydrogenation of
100 mg. Va in 10 ml. AcOH with Pd and 0.1 ml. HCO₃ gave
40 mg. of an isomer (IVa) of IVaa, m. 100-2° (from MeOH).
Similar cyclization of 2 g. IIb yielded after ether extn. and
chromatography 0.3 g. of a stereoisomeric lactone (Vb),
b.p. 203-15°, m. 99-103° (from MeOH). Thermal cycli-
zation of IIa by heating 0.4 g. IIa 10 min. at 240° gave,
after distn. in *vacuo*, 250 mg. of a mixt. of IIIa and Va
which regenerated IIa on alk. hydrolysis. Partial hydroly-
sis of the liquid portion of I (7.4 g.) in 20 ml. EtOH gave 4.4 g.
2-methyl-3-carbonyl-5-(*p*-methoxyphenyl)cyclohexanone-6-
acetic acid (VI), which treated in 100 ml. C₆H₆ at 0° with
4 g. PCl₅, the crude chloride shaken 15 min. at 0° with 4 ml.
NaCl, and the mixt. decompd. with 20 g. ice and 20 ml.
HCl, gave, after chromatography, 1.2 g. (probably) 2-
methyl-3-carbonyl-7-(*p*-methoxyphenyl)-1,9-dioxo-1,2,3,4,-
ta,9,10,10a-octahydronaphthalene, b.p. 200-10°. To
verify the formation of unsatd. lactones, 4.8 g. cyclohexa-
none-2-acetic acid, m. 72-4°, was added to 22 g. poly-
phosphoric acid at 150°, and the mixt. heated 10 min. at
150°, decompd. with 100 g. ice, and extd. with ether to give
1.8 g. lactone of 2-hydroxy-1-
cyclohexeneacetic acid, b.p.
102-5, m. 20-25°. In connection with the syntheses, a
mixt. of 13.5 g. Et₂2-methyl-2-carbethoxy-cyclohexanone-6-
acetic acid (loc. cit.) and 8.85 g. BrCH₂CO₂Br was heated
with 3.26 g. Zn, 20 ml. C₆H₆, and 70 ml. PhMe 4 hrs. at

(over)

Jiri O. Jilek

100°, decompd. with 50 ml. 10% AcOH, and the org. layer washed with 50 ml. 10% NH₃ soln, and distd. to give 10.9 g. of a mixt. of stereoisomeric 2-methyl-3-carbethoxy-1,6-bis(carboethoxymethyl)cyclohexanol, the dehydration of which (5 g.) by refluxing 8 hrs. with 50 ml. 86% HCO₂H gave 2 g. isomeric unsatd. esters, dl-Et 3-methyl-1-carbethoxy-1-cyclohexene-1,3-diacetate, and Et 2-methyl-3-carbethoxy-6-carboethoxymethyl-4-cyclohexaneacetate, bp₄₀ 130-8°. Infrared spectra of IIIa, IVa₂, and V_a are given. M. Hudlicky

JILEK, J.O.

CZECH

Synthetic experiments in the histamine group. V. 4-Methylmercaptomethylimidazole. M. Pintar and J. O. Jilek (VYKUŘOVÝ ÚSTAV FARM. BIOCHEM., PRAGUE). C. A. 49, 10162. Treating Me-SNa (from MeSH, 4.6 g., Na, and 100 ml. EtOH) with 14 g. 4-chloromethylimidazole-HCl (m. 144°), refluxing the mixt. 3 hrs., filtering off the salt, and distg. the filtrate ~~in vacuo~~ gave 4-methylmercaptomethylimidazole, b.p. 180° in 88% (from Et₂O); HCl salt (I), m. 151; (from 5:1 MeCO-H₂O). I (0.2 g.), 2 ml. MeI, and 1 ml. MeOH refluxed 2 hrs. gave I-MeI, m. 205-7° (decompn.) (from MeOH). M. Hudlický

15OpJ

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3

JILEK, JIRI C.

✓ Syntheses in estrogenic hormones group. VIII. The chemistry of 2-methyl-2-carboxy-5-hydroxycyclohexanone derivatives. Miroslav Protiva, Jiri O. Jilek, Ludvik Novak, Edita Adlerova, Vladislava Blumek, and Eduard Knobloch. *Collection Czechoslov. Chem. Commun.*, 21, 159-80 (1956) (in German). — See C.A. 50, 40484.

R. J. C.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3

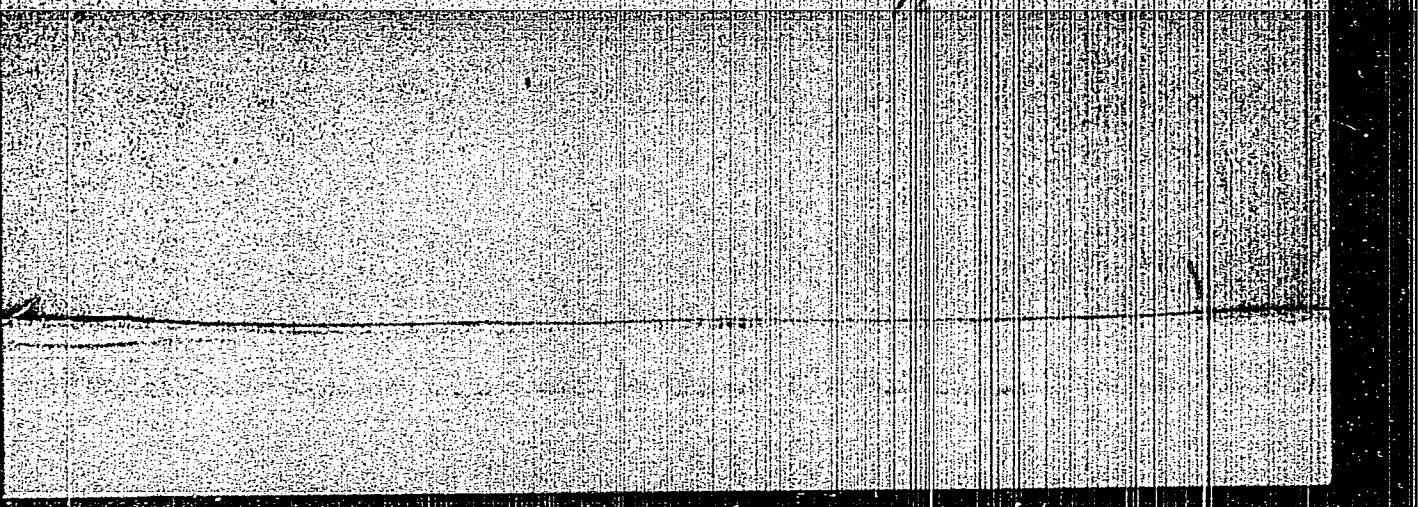
Mylakowsky, V., Jilek, J.O., Protivo, M.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3



APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

JILEK, J.O.

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11331.

Author : Mychajlyszyn, V. and Jilek, J. O.

Inst :
Title : Synthetic Analgesics. II. Synthesis and Reactions of
Several Hydrogenated Derivatives of 1-Phenylisoquino-
line.

Orig Pub: Chem Listy, 50, No 12, 2011-2017 (1956) (in Czech)

Abstract: The reaction of the iodomethylate of 5,6,7,8-tetrahydroisoquinoline with C₆H₅MgBr (in ether at ~20°) gives 1-phenyl-2-methyl-1,2,5,6,7,8-hexahydroisoquinoline (I), yield 28%, bp 140-143°/0.8 mm. The benzoylation of 1-cyclohexenylethylamine in 20% NaOH solution gives N-(β -1-cyclohexenyl)-benzamide (II), yield 98%, mp 78° (from alcohol; all mp's reported in this

Card : 1/5

25

CZECHOSLOVAKIA/Organic Chemistry: Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, no 4, 1958, 11331.

to the picrates: 1 gms IV, 0.5 gms III, and 0.7 gms of the picrate of 1-phenyl-1,2,3,4,5,6,7,8-octahydroisoquinoline, mp 130-132°. The hydrogenation of a solution of I in CH₃OH over Pt (from PtO₂) gives 1-phenyl-2-methyl-1,2,3,4,5,6,7,8-octahydroisoquinoline (VII), yield 65%, bp 125-130°/0.2 mm; picrate (VIII), mp 224-226° (from alcohol). The iodomethylate obtained from the crude product of the cyclization of II on hydrogenation over Raney Ni in a methanol solution of KOH gives a mixture of bases, yield 40%, bp 120-140°/0.5 mm, from which 15% IV and 75% VIII are obtained. Chromatography of a petroleum ether solution of the mixture of bases on Al₂O₃ gives free VII. VII and VIII are not identical with the base (nor its picrate) obtained by the action of N-benzylidenecyclohexenylethylamine with dimethyl sulfate

Card : 4/5

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11331.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619620013-3"

(Grewe et al, Chem Ber, 81, 279 (1948); RZhKhim, 1954, 16315), to which the authors assign the same structure. The attempt to convert VII (as well as the compounds obtained by the German workers) to N-methyl-10-normorphine [sic] by heating 60 hrs at 140-150° with H₃PO₄ gave no positive results. For Communication I see RZhKhim, 1957, 30811.

Card : 5/5

JILEK J.

CZECHOSLOVAKIA/Organic Chemistry - Natural Compound and Their
Synthetic Analogs.

G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54013

Author : Vilek, Protiva

Inst :

Title : A Study of the Synthesis of Estrogenic Hormones. XV.
Reaction of Phenylacetylenes with Substituted Cyclo-
hexanones. A New Total Synthesis of Certain Racemic
Doisynolic Acids.

Orig Pub : Chem. listy, 1957, 51, No 4, 643-653

Abstract : 1-ethyl-2-methyl-7-hydroxy-1,2,3,4,9,10,11, 12-octahy-
drophenanthrenecarboxylic-2-acid (I) (from racemic
doisynolic acids) was synthesized in the following
manner:The reaction of $m\text{-CH}_3\text{OC}_6\text{H}_4\text{CO}_2\text{K}$ (II) with the methyl ester
of 2-ethyl-3-methylcyclohexanocarboxylic-3-acid (III)
in tertiary butanol (sim hours at 90°C) resulted in the

Card 1/7

CZECHOSLOVAKIA/Organic Chemistry - Natural Compounds and Their G.
APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619620013-3"

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54013

formation of the lactone, 1-(*m*-methoxyphenyl-ethynyl)-2-
ethyl-3-methyl-1-hydroxycyclohexanocarboxylic-3-acid (V).
A crude yield of 76% was obtained after chromatographic
treatment on Al_2O_3 , b. p. 190-205°C/0.3 mm. The hydro-
genation of V on Pd/C in methanol lead to the formation
of the lactone, 1-[β -(*m*-methoxyphenyl)-ethyl]-2-ethyl-
3-methyl-1-hydroxycyclohexanocarboxylic-3-acid (IV),
which was purified by chromatographic treatment with
 Al_2O_3 , b. p. 200-215°C/0.8 mm, 190-205°C/0.2 mm, m. p.
70°C. (from petroleum ether - benzene).

Compound IV was also obtained by direct hydrogenation of
the condensation product of III with II (without the in-
termediate separation of V), yield, 20.4%. The saponi-
fication of V with a 20% methanol KOH solution (boiling
for 20 hours) produced 1-[β -(*m*-methoxyphenyl)-ethyl]-
2-ethyl-3-methyl-1-hydroxycyclohexane carboxylic-3-acid,

Card 2/7

CZECHOSLOVAKIA/Organic Chemistry - Natural Compounds and Their
Synthetic Analogs.

G.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54013

β -(2-phenyl ethynyl-2-hydroxycyclohexyl)-propionic acid (yield 51%, b. p. 180-230°C./1-5 mm, m. p. 83-84°C. (from petroleum ether)), which product upon hydrogenation was converted into the lactone, β -(2- β -phenylethyl)-2-hydroxycyclohexyl)-propionic acid, yield 66%, m. p. 98°C. (from petroleum ether). Similarly, III was converted into the lactone of 1-phenylethyne-2-ethyl-3-methyl-1-hydroxy cyclohexylcarboxylic-3 acid (yield 37%, b. p. 160-180°C./0.9 mm, m. p. 90°C. (from petroleum ether)), which after hydrogenation over Pd/C, was converted into the lactone, 1-(β -phenylethyl)-2-ethyl-3-methyl-1-hydroxy cyclohexylcarboxylic-3 acid, m. p. 175-180°C./0.2 mm. II was synthesized from the ethyl ester of β -(m-methoxyphenyl)- α - β -dibromo propionic acid, m. p. 58-59°C. (from petroleum ether), prepared quantitatively by bromination of the ethyl

Card 6/7

17

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances G
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61101.

Abstract: or by Radney's catalyst under pressure, or with LiAlH₄, yield 52 to 56%, boiling point 158°/0.5 mm, melting point 112 to 113° (from benzene), 5-methoxytryptamine, melting point 120 to 121°, and 7-methoxytryptamine, melting point 134 to 135°, are prepared according to Spath and Lederer (Spath E., Lederer E., Ber., 1930, 63, 2102). (CH₃)₂C(C₆H₅)CONH, melting point 160°, is prepared by hydrolyzing (CH₃)₂C(C₆H₅)CN with aqueous KOH, it produces (CH₃)₂C(C₆H₅)COOH, melting point 77°, at the continued hydrolysis in KOH. Hydrochloride

Card 2/11

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances G
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimia, No 18, 1958, 61101.

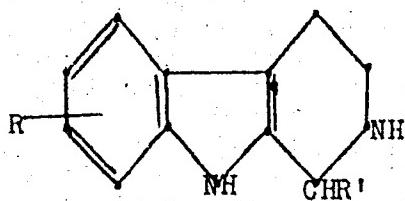
Abstract: corresponding acid, and c/ of the corresponding I and hydrochloride of the corresponding acid in C₆H₆ in the presence of aqueous NaOH at about 20°. 5-methoxytriptamine of PNA (VI), melting point 117° (from CH₃OH), was prepared of IV according to the method a, yielded 80%. Triptamide of 4-methoxy-PNA (VII), melting point 155 to 156° (CH₃ OH), was prepared of I and methoxy-PNA by the method b, yield 46%. Triptamide of α -phenylisobutyric acid (VIII), melting point 137 to 138° (from benzene), was prepared of I and IV by the method c, yield 91%. Triptamide of PNA (IX), melt-

Card 4/11

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances G
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61101.

Abstract:



yield 79%. 7-methoxytriptamide of PNA (XIII),
melting point 101 to 102° (from aqueous CH₃OH),

Card 6/11

02

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances G
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61101.

Abstract: harman; MS - melting point 245 to 247°. Other 1,2,3,4-tetrahydronorharmans of the general formula A are prepared (if not indicated otherwise) by the cyclisation of the corresponding triptamide (same as XIV) and reduction of the produced raw 3,4-dihydronorharman (same as XV): A, R = H, R' = $C_6H_5C(CH_3)_2-$, (from VIII), MS - melting point 225 to 226°; R = H, R' = 5,6,7,8-tetrahydro-1-naphthylmethyl, (from XIII), hydrochloride - melting point 247 to 253° (from aqueous alcohol), MS - melting point 239 to 241°; R = 6-OCH₃, R' = $C_6H_5CH_2$, (from VI), MS - melting point 249°;

Card 8/11

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619620013-3"
CZECHOSLOVAKIA / Organic Chemistry. Natural Substances G
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61101.

Abstract: R = 8-OCH₃, R' = $C_6H_5CH_2$, (from XIII), MS - melting point 249 to 250°; R = H, R' = 4-OCH₃C₆H₄CH₂, (from VII) or by aging 24 g of I hydrochloride with 24 g of 4-CH₃O₂C₆H₄CH₂COCOOH in 600 ml of water and 360 ml of acetic buffer (pH = 3.8) in the duration of 40 days at 37°, decarboxylation of the formed 1-(4-methoxybenzyl)-1,2,3,4-tetrahydronorharman-1-carboxylic acid (melting point of raw acid 223 to 225°; dissociates), passing HCl (gas) through its suspension in boiling CH₃OH, dissolution of the raw product in CHCl₃ and filtration through Al₂O₃; hydrochloride - melting point 252 to 254° (from CH₃OH); MS - melting point 252 to 253°; A, R = H, R' = C₆H₅, melting point

Card 9/11

JILEK, Jiri O.

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

Author : Miroslav Protiva, Jiri O. Jilek, Vladimir Hach,
Edita Adlerova, Vladimir Mychaljuszyn.

Inst : American Chemical Society.

Title : Synthetic Models of Blood Pressure Depressing Alkaloids.
II. Simple Models of Reserpine With Cyclohexane Ring.

Orig Pub: Chem. listy, 1957, 51, No 11, 2109-2117.

Abstract: Cyclohexylacetic acid (I) was prepared by the reduction of a solution of sodium cyclohexylidene-acetate on Raney nickel under 110 atm. at 100°, yield 86%, boil p. 123 to 125°/5 mm; it was converted into cyclohexylacetylchloride (II) by the

Card : 1/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

tion by NH_4OH ; that base was reduced with 1.2 g of Na in 120 ml of alcohol to 1-cyclohexylmethyl-1,2,3,4-tetrahydronorharman (V) (yield 3.6 g); hydrochloride, melt. p. 245 to 246° (from alc.); metasulfonate, melt. p. 262 to 265° (from aqu. alc.). Ethyl ester (EE) of 1-oxy-4-methoxycyclohexylacetic acid was synthetized of 4-methoxycyclohexanone (VI) and $\text{CH}_2\text{Br}-\text{COOC}_2\text{H}_5$ in C_6H_6 by the reaction of Reformatskiy, yield 64%, boil. p. 110 to 111°/1.6 mm; it produced the EE of 4-methoxycyclohexenylacetic acid (VII) after 4 hours of action of SOCl_2 in pyridine in an ice bath, boil. p. 120°/14 mm. 4-methoxycyclohexenylacetic acid (VIII) was prepared by 12 hour boiling of VII with

Card : 3/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
APPROVED FOR RELEASE: 08/10/2001 G CIA-RDP86-00513R000619620013-3"

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

KOH solution in alcohol, yield 85%, boil. p. 150 to 152°/2 mm, melt. p. 27 to 30°. Hydrogenation of VII on PtO_{2} in CH_3COOH resulted in EE of 4-methoxycyclohexylacetic acid (IX), boil. p. 120 to 122°/20 mm. By hydrogenation of the aqueous solution of Na salt of VIII on Raney's nickel under 105 atm. at 80 to 90°, or by 12 hour boiling of IX with KOH solution in alcohol, cis-(?)-4-methoxycyclohexylacetic acid was produced, yield 80%, boil. p. 151 to 152°/3 mm, melt. p. 19 to 22°; S-benzylisothiouronic salt, melt. p. 145 to 146° (from alc.), 4-methoxycyclohexylacetyl chloride, boil. p. 108 to 111°/10 mm, synthetized of the

Card : 4/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

of $\text{CH}_3\text{COONH}_4$ by 7 hour boiling with azeotropic water removal; XI was boiled 3 hours with 10%-ual NaOH and VIII was produced, yield 61%. 4-methoxy-cyclohexenylacetyl chloride (XII) produced of VIII and SOCl_2 was added drop by drop with simultaneous cooling to concentrated NH_4OH and 4-methoxycyclohexenylacetamide (XIII) was obtained, yield 45%, melt. p. 126° (from iso- $\text{C}_3\text{H}_7\text{OHO}$. 1.5 g of 2-(4-methoxycyclohexenyl)-ethylamine hydrochloride (XIV) was prepared by adding the solution of 3 g of XI in 10 ml of ether drop by drop to 1 g of LiAlH_4 in 10 ml of ether at -5°, 30 min. seasoning at -5°, 2 hour boiling, decomposition with 5 ml of water and 20 ml of 40%-ual NaOH, extraction of the ether

Card : 6/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

β -methoxyadipinic acid in the mixture toluene-alcohol in the presence of H_2SO_4 at a simultaneous azeotropic removal of water leads to ethyl ester of β -methoxyadipinic acid, yield 80%, boil. p. 118 to 120°/2.5 mm, $n^{20}_D = 1.4336$. By the reduction of EE of 4-oxyphenylacetic acid in alcohol on Raney's nickel in the presence of C_2H_5ONa under 125 atm and at 150 to 160°, EE of 4-oxyphenoxyacetic acid was obtained, yield 61%, boil. p. 115 to 116°/0.4 mm, which was saponified by 2 hour boiling with NaOH solution in aqueous alcohol to a mixture of stereoisomeric 4-oxyphenoxyacetic acids, yield 94%, melt. p. 110 to 120° (raw). 4-oxyphenoxyacetic acid was prepared

Card : 8/11

CZECHOSLOVAKIA/Organic Chemistry: Natural Substances and
Their Synthetic Analogs

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

melt. p. 177° (from alc. + eth.). Hexahydrochordenine (XVIII) was produced by hydrogenating XVII on Pt from PtO₂ in CH₃COOH, yield 58%, boil. p. 132 to 134°/10 mm; 2-(cyclohexylethyl)-dimethyl-amine was separated as a by-product of hydrogenation, yield 19%, boil. p. 82 to 84°/10 mm; picrate, melt. p. 154° (not adjusted, from alc.). 3,4,5-trimethoxybenzoate of XVIII (XIX), semisolid if impure, was synthetized of XVIII and 3,4,5-trimethoxybenzoylchloride by seasoning (about 12 hours) in C₆H₆; hydrochloride, melt. p. 214° (not adjusted, from alc. + eth.). V and X show a hypotensive activity same as their aromatic analogues described in the report I (see RZhKhim, 1958, 61101). The substance XIX is not active. The position of the

Card : 10/11

COUNTRY	:	Czechoslovakia	G-2
CATEGORY	:		
ABS. JOUR.	:	RZKhim., No. 16 1959, No.	57137
AUTHOR	:		
INBT.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	hydrochloride of I. Antazoline, $C_6H_5CH_2N(C_6H_5)-CH_2C=NCH_2CH_2NH$, (II) yields the following salts: A solution of 5.3 gms II in 30 ml abs alc and a solution of 1 gm H_2SO_4 in 5 ml alc are mixed together to give the ethyl sulfate of II, mp 195° (corr; from alc); 2 gms H_2SO_4 in 7 ml iso- C_6H_5OH are added with cooling to a solution of 5 gms II in 15 ml iso- C_6H_5OH or a solution of 2.2 gms H_2SO_4 in 5 ml C_6H_5OH is added dropwise to a cold solution of 5 gms II in 15 ml n- C_6H_5OH	
CARD:	2/4		

JILEK, J.

CZECHOSLOVAKIA/Organic Chemistry. Natural Products and Their
Synthetic Analogues.

G-3

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81760.

Author : Adlerova E., Novak L., Protiva M., Jilek J., Protiva M.

Inst :

Title : The Synthesis in the Group of Estrogenic Hormones. XIV.
2-Substituted Derivatives of 3-Methyl Cyclohexanone
Carbonic Acid . XV. The Reaction of Phenylacetylenes with
Substituted Cyclohexanones. A New Complete Synthesis of
One of the Racemic Doisynolic Acids.

Orig Pub: Collect, czechosl. chem. commun., 1958, 23, No 4, 681-
691; 692-703.

Abstract: See R.Zh. Khim., 1958, 11219, 54013.

Card : 1/1

CZECHOSLOVAKIA/Organic Chemistry Synthetic Organic Chemistry. G-2

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81677.

Author : Mychajlyszyn V., Jilek J

Inst :

Title : The Synthetic Anesthetic Compounds. II. The Preparation
and Reactions of Some Hydrogenated Derivatives of 1-
Phenylisoquinoline.

Orig Pub: Collect czechosl. chem. commun., 1958, 23, No 5, 932-939.

Abstract: See R. Zh. Khim., 1958, 11331.

Card : 1/1

35

JILEK, J.O.; PROTIVA, M.

Synthetic experiments in the group of estrogenic hormones. XIX.
Wagner-Meerwein arrangement of 1-methyl-2-ethylcyclohexylcarbinol
and its analogue in the octahydrophenanthrene series. Coll Cz Chem
25 no.1:165-179 Ja '60. (EEAI 9:12)

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.
(Estrogenic hormones)
(Rearrangements)
(Ethylmethylcyclohexanemethanol)
(Octahydrophenanthrene)

ADLEROVA, E.; BLAHA, L.; BOREVICKA, M.; ERNEST, I.; JILEK, J.O.; KAKAC, B.;
NOVAK, L.; RAJSNER, M.; PROTIVA, M.

Synthetic experiments in the group of hypotensive alkaloids. VI.
Some notes on the preparation of alicyclic components in the
synthesis of compounds of the reserpine type. Coll Cz Chem 25 no.1:
221-236 Ja '60. (EEAI 9:12)

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.
(Alkaloids) (Hypotension)
(Alicyclic compounds) (Reserpine)

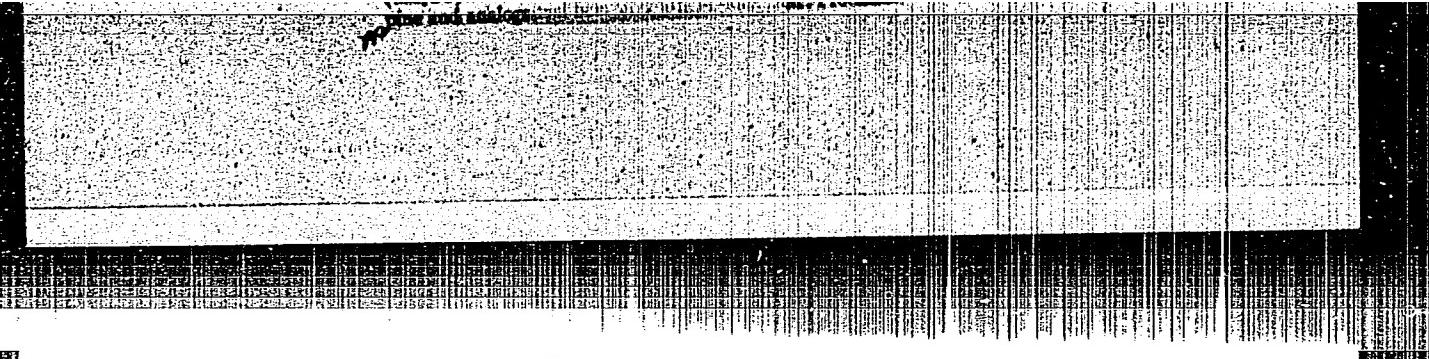
JILEK, J.O.

7. 2-Methoxy-3-hydroxy-7-oxo-cis-1,2,3,4,7,8,9,10-octahy-
droanthracene-1-carboxylic acid lactone / M. Protiva and
J. O. Jilek, Czech. 94,219, Feb. 15, 1960. 2-Methoxy-3-

2

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3



APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620013-3"

NOVAK, L.; JILEK, J. O.; KAKAC, B.; ERNEST, I.; PROTIVA, M.

Synthetic experiments in the group of hypotensive alkaloids. IX. A new method for splitting racemates in the total synthesis of reserpine.
Coll Cz Chem 25 no.8:2196-2206 Ag '60. (EEAI 10:9)

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.

(Alkaloids) (Hypotension) (Tartaric acid)
(Reserpine)

JILEK, J. O.; ERNEST, I.; NOVAK, L.; RAJSNER, M.; PROTIVA, M.

Synthetic experiments in the group of hypotensive action alkaloids.
XII. Contribution to the terminal phases of total synthesis of
reserpine and deserpidine. Coll Cz Chem 26 no.3:687-700 Mr '61.
(EEAI 10:9)

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.

(Reserpine) (Deserpidine) (Alkaloids)

JILEK, J. O.; POMYKACEK, J.; PROTIVA, M.

Synthetic tests in the group of hypotensive active alkaloids. Part
15: Synthesis of racemic homoveratrylamine analogues of reserpines
and isoreserpines. Coll Cz Chem 26 no.4:1145-1159 Ap '61.

1. Forschungsinstitut fur Pharmacie und Biochemie, Prag.

(Alkaloids) (Reserpine)

PROTIVA, M.; CAPEK, A.; JILEK, O.; KAKAC, B.; TADRA, M.

Synthetic experiments in the group of hypotensive active alkaloids.
XVIII. Microbiologic reduction of lactons cf the (+)-5-oxo-8 β -hydroxy-cis-1,4,5,8,9,10-hexahydro-1 β -naphthalic acid. Coll Cz chem
26 no.6:1537-1541 Je '61.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.

(Lactons) (Naphthalic acid)

JILEK, O. J.; KAKAC, B.; PROTIVA, M.

Synthetic experiments in the group of hypotensive active alkaloids.
Part 19: Reduction of (\pm)-5,8-dioxo-cis-1,4,8,9,10-hexahydro-1 β -
naphtoic acid isopropylesters according to Meerwein. Coll Cz Chem 26
no. 9: 2239-2237 '61.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.

(Alkaloids) (Esters)

JILEK, J.

CZECHOSLOVAKIA

PROTIVA, M; JILEK, J; POMYKACEK, J; JIRKOVSKY, J; VEJDELEK, Z.

Research Institute of Pharmacy and Biochemistry (Forschungs-institut für Pharmazie und Biochemie), Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 10, 1963, pp 2627-2635

"Synthetic Analgetica V. Synthetic Experiments on a Base
of 4-phenyl-4-Carbethoxypiperidine (Norpethidine)."

(5)

ERNEST, I.; JILEK, J.O.; VEJDELEK, Z.J.; PROTIVA, M.

Sythetic experiments in the group of active hypotensive alkaloids.
Pt. 26. Coll Cz Chem 28 no.4:1022-1030 Ap '63.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.

PROTIVA, M.; JILEK, J.O.; POMYKACEK, J.; JIRKOVSKY, J.; VEJLELEK, Z.J.
SEIDLLOVA, V.

Synthetic analgesics. Pts. 5-6. Coll Cz Chem 28 no.10:2627-2636,
2821-2824 0 '63.

1. Forschung institut fur Pharmazie und Biochemie, Prag.

JILEK, J.O.; POMYKACEK, J.; METYSOVA, J.; METYS, J.; PROTIVA, M.

Neurotropic and psychotropic substances. Pt.3. Coll Cz Chem
30 no.2:463-471 F '65.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prague.
Submitted May 4, 1964.

JILEK, J.O., FELZ, K.; PAVLICKOVA, D.; PROTIVA, M.

Neurotropic and psychotropic substances. Pt.4. Coll Czech
30 no.5:1676-1683 My '65.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prague,
Submitted June 22, 1964.

JILEK, J.O.; POMYKACEK, J.; SVATEK, E.; SEIDLOVA, V.; RAJSNER, M.; FELZ, K.;
HOCH, B.; PROTIVA, M.

Neurotropic and psychotropic substances. Pt.2. Coll Cz Chem
30 no.2:445-462 F '65.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prague,
Submitted May 4, 1964.

JILEK, J.O.; RAJSNER, M.; POMYKACEK, J.; PROTIVA, M., inz. dr., DrSc.,
(Kourimska 17, Praha 3).

Synthetic ataraxics. Part 12. Cesk. farm. 14 no. 6:294-303 Ag '65.

1. Vyzkumny ustav pro farmacii a biochemii, Praha. Submitted
December 21, 1964.

JILEK, L.

MYSLIVECK, J.; JILEK, L.

Development of oxygen requirement in certain tissues in rats.
Chekh fiz 2 no.4:363-366 '53. (HEAL 3:7)

1. Katedra fisiologii pri meditsinskom fakul'tete universiteta
im. Karla IV, Praga.
(OXYGEN, metabolism,
*develop. of oxygen requirement in various tissues in
rats, age factor)

JILEK, L.

CZECHOSLOVAKIA / Human and Animal Physiology. Metabolism. T

Abs Jour: Ref Zhur-Biol., No 5, 1958, 21859.

Author : Jilek L.

Inst : Univ. Carolina.

Title : Changes in O₂ Requirements Following Operations
On the Central Nervous System in Rats-Decortication.

Orig Pub: Med. 1956, 2, No 1, 47-59.

Abstract: Decortication of rats produced a definite lowering of O₂ requirement in the animals on the third day following the operation (from 21 ml/100 gm of wt. in 5 min. in the normal to 13.4 ml). Under these circumstances the liver respiration diminished by 54.5%; the kidneys by 53.8%.

Card 1/1

8

CZECHOSLOVAKIA/Human and Animal Physiology (Normal and Pathological). Blood Circulation. General Problems. T-5

Abs Jour : Ref Zhur - Biol., № 11, 1958, 50769

Author : Myslivecek, J., Jilek, L., Sendlacek, J., Mourek, J.

Inst : Carolina University of Prague

Title : Methods Using Permanent Vascular Cannulae.

Orig Pub : Univ. Carolina. Med., 1956, 2, No 1, 143-149.

Abstract : A recent modification of methods applying permanent cannulae for internal organs in animals is described. These cannulae are made from silon, polyethylene, or polyvinylbutyrol, and are fastened to a silon net which is wrapped around vessels by sutures. Such cannulae (which are similar to the cannulae of London) make it possible to obtain blood in repeated tests, to measure vessel temperature, to record blood pressure, etc. -- N.N. Blokhin.

Card 1/1

Country : CZECHOSLOVAKIA
Category : Human and Animal Physiology.
 The Nervous System. Blood Supply. T
Abs. Jour. : Ref Zhur-Biol., No 23, 1958, 106810

Author : Jilek, Lubor ***
Institut. : Katedra fysiologie fakulty vseobecneho lekarstvi Karlovy university
Title : The Reaction of the Organism to Cerebral Ische-mia in Ontogenesis. I. The Development of Resi-stability to Cerebral Ischemia in Rats.
Orig Pub. : Sbor. Lekar., 1957, 59, No 6, 188-195

Abstract : Very young rats (up to 16 days old) and adult rats endured well a ligation of both carotid arteries. Four to five weeks old rats succumbed rapidly after such operations. The development of changes in altitude hypoxia and in cerebral ischemia progressed in the same manner. An impairment of the CNS [central nervous system] resulting from disrupted blood circulation in the brain at early developmental stages, may cause the animal's death at later periods. For

***v Praze Pracovni skupina vyvolje nervovyh funkcii. L.J., Fysiologicky Card. ustav, Albertov, Praha 2.

JILEK, Lubor

The response of the organism to cerebral ischemia in the course of
ontogenesis. IV. Response of the rat to temporary ischemia of the CNS.
Sborn. lek. 60 no.7-8:235-241 July 58.

1. Fysiolgicky ustav fakulty vsobecneho lekarstvi university Karlovy
v Praze prednosta prof. Dr. F. Karasek.
(CENTRAL NERVOUS SYSTEM, blood supply
ischemia, exper. eff. on newborn & adults rats (Cz))

JILEK, Lubor

The response of the organism to cerebral ischemia in the course of ontogenesis. V. Contribution to the research on changes in cerebral metabolism after ligation of the carotid arteries during ontogenesis in rats. Sborn. lek. 60 no.7-8:242-248 July 58.

1. Fysiologicky ustav fakulty všeobecného lékařství univerzity Karlovy v Praze, prednosta prof. Dr. F. Karásek.

(ARTERIES, CAROTID, physiology)

eff. of exper. ligation on cerebral metab. in newborn & adult rats (Cz))

(BRAIN, metabolism

eff. of exper. ligation of carotid arteries in newborn & adult rats (Cz))

FISCHER, J.; JILEK, L.

Regeneration of changes in the central nervous system induced by ligation of the carotid arteries in early stage of development in rats. Cesk. fy-
siol 7 no.5:452-453 Sept 58.

1. II. patologicko-anatomicky ustav a Fysiologicky ustav fak. vseob. lek.
UK, Praha.

(BRAIN, physiol.

regen. of changed induced by carotid ligation in young rats
(Cz))

(ARTERIES, CAROTID, physiol.
same)

JILEK, L.; MARES, P.

~~Effect of external temperature on resistance of young rats to ligation of the carotid arteries. Cesk. fysiol. 7 no.5:486-487 Sept 58.~~

1. Fysiologicky ustav fak, vseob. lek. KU, Praha.
(TEMPERATURE, effects,
on resist. of young rats to ligation of carotid artery (Cz))
(ARTERIES, CAROTID, physiol.
eff. of temperature on resist. of young rats to ligation
(Cz))

JILEK, L.; TROJAN, S.

Studies on the development of regulation of cerebral circulation. Cesk. fysiol. 7 no.5:487-488 Sept 58.

1. Fysiologicky ustav fak. vseob. lek. KU, Praha.
(BRAIN, blood supply,
age factor in develop. of cerebral circ., eff. of body tem-
perature (Cz))
(AGING, effects,
on brain circ. regulation, body temperature factor (Cz))
(BODY TEMPERATURE, physiol.
in regulation of cerebral circ., age factor (Cz))